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REFERENCE DRAWINGS	

- NOTES:**
- THIS DRAWING SHOWS THE PROTECTION CABLING WHICH IS TO BE USED IN CONJUNCTION WITH RMICB CHAMBER TYPE SUBSTATIONS AND SHOULD BE READ IN CONJUNCTION WITH NETWORK STANDARDS AND THE SUBSTATION DESIGN INFORMATION PACKAGE.
 - THE CABLING AND CABLE SCHEDULE SHOWN ON THIS DRAWING IS FOR A 3 TRANSFORMER SUBSTATION. FOR SINGLE AND TWO TRANSFORMER SUBSTATIONS DELETE ANY EQUIPMENT NOT REQUIRED, CABLE CONNECTIONS AND NOTE THE FOLLOWING CHANGES TO THE CABLING.
 SINGLE TRANSFORMER SUBSTATION
 CABLE 1M GOES TO THE SERVICE BOARD INSTEAD OF 3M.
 SINGLE AND TWO TRANSFORMER SUBSTATION
 CABLE 2M GOES TO THE SERVICE BOARD INSTEAD OF 3M. FOR ALL REMAINING CABLES, NAMING FROM THE LAST INSTALLED PANEL, SHALL TAKE PRECEDENCE. CABLE NAMING IS TO BE AS SHOWN, I.E. FOR A TWO TRANSFORMER SUBSTATION, THE BATTERY CABLES 4AD & 4BD THAT LOOP BETWEEN TX2 & TX3 PROTECTION PANELS ARE NOT REQUIRED. CABLES 5AD & 5BD FROM CUSTOMER SUPPLY No.1 PROTECTION PANEL WOULD BE CABLED TO TX 2 PROTECTION PANEL.
 - ONLY WHERE REQUIRED, THE EFI COULD BE MOUNTED ON EITHER SIDE OF THE HV SWITCHGEAR. IT IS SHOULD BE MOUNTED ON THE CABLE OF THE OUTING 11kV FEEDER. REFER TO THE SUBSTATION DESIGN INFORMATION PACKAGE FOR SUBSTATION SPECIFIC REQUIREMENTS.
 - THE HV DIFF CT'S ARE GENERALLY MOUNTED BELOW THE RMICB. HOWEVER THEY ARE TO BE MOUNTED ADJACENT TO THE TRANSFORMER HV CONNECTIONS IF THERE IS INADEQUATE SPACE BELOW THE RMICB. FOR UPPER LEVEL SUBSTATIONS OR SUBSTATIONS WITH A CONTROL POINT WHICH IS NOT LOCATED ADJACENT TO THE SUBSTATION, THESE CT'S ARE ALWAYS MOUNTED ADJACENT TO THE TRANSFORMER HV CONNECTIONS.
 - THE LV DIFF CT'S & CUSTOMER SUPPLY CT'S ARE LOCATED IN THEIR RESPECTIVE LV SWITCHBOARD PANEL.
 - CABLES 8A - 10A, 10S - 12S AND 1T - 3T ARE INSTALLED ONLY WHEN DRY TYPE TRANSFORMERS ARE USED.
 - FOR AN UPPER LEVEL SUBSTATION, THE RMICB'S ARE LOCATED IN A CONTROL POINT WHICH IS REMOTE FROM THE SUBSTATION. CABLES 1HV TO 3HV MUST BE RUN FROM THE TRANSFORMER PROTECTION PANEL IN THE SUBSTATION TO THE RMICB'S IN THE CONTROL POINT TO FACILITATE TRIPPING OF THE RMICB'S. IF THE CABLE RUN IS GREATER THAN 50 METRES, THE CABLE SIZE IS TO BE INCREASED TO 6mm² TO OVERCOME VOLTAGE DROP. HOWEVER, IF VOLTAGE AT THE RMICB TRIP COIL IS LESS THAN 60% OF THE NOMINAL BATTERY VOLTAGE, AUSGRID WILL ADVISE ADDITIONAL REQUIREMENTS TO BE UNDERTAKEN BY THE EQUIPPER.
 - FOR A CUSTOMER CABLE SUPPLY, THE CUSTOMER SWITCH CAN BE AN AIR CIRCUIT BREAKER OR A DISCONNECTOR. FOR A CUSTOMER BUSBAR SUPPLY, THE CUSTOMER SWITCH CAN BE AN AIR CIRCUIT BREAKER, A DISCONNECTOR OR A LINK. IN ALL OF THESE INSTALLATIONS, OVERCURRENT CT'S ARE INSTALLED IN THE CUSTOMER SUPPLY PANEL.
 - A SEPARATE PROTECTION PANEL FOR EACH CUSTOMER SUPPLY IS NORMALLY INSTALLED. THE DUAL VERSION OF THE CUSTOMER OVERCURRENT PROTECTION PANEL CAN ONLY BE USED WHEN THERE IS INSUFFICIENT WALL SPACE IN THE SUBSTATION TO ACCOMMODATE SEPARATE PANELS.
 - CABLE 11A IS TO BE SIZED TO MEET VOLTAGE DROP REQUIREMENTS OUTLINED IN AS 3000.
 - TRANSFORMER PROTECTION PANELS CONSTRUCTION ARE DEPENDANT ON THE TYPE OF TRANSFORMERS INSTALLED.
 OIL TYPE REQUIRES STYLE 1 PROTECTION PANEL
 DRY TYPE REQUIRES STYLE 2 PROTECTION PANEL
 - 'B' BATTERY TEST POINT BOX (BTP) ONLY REQUIRED WHERE THE 'A' BATTERY VOLTMETER/TEST POINT OR THE ARC FLASH DETECTION INDICATION PANEL HAVE BEEN MOUNTED EXTERNALLY TO THE SUBSTATION CHAMBER. 'B' BATTERY TERMINATION BOX (BTB) ADDED TO ENABLE SIMPLIFIED BATTERY REPLACEMENT. 'BTB' ENCLOSURE TO BE PVC, IP65 RATED WITH MINIMUM DIMENSIONS OF 180mm(L)x175mm(W)x75mm(D) WITH G TYPE TERMINAL RAIL AND UTILUX 3820 TERMINALS.

CAD DRAWING
DO NOT MANUALLY AMEND

AMENDMENTS

1. REE/CIL
ADDED 'B' BATTERY TEST POINT BOX AND 'A' BATTERY TERMINATION BOX TO BATTERY CONNECTION DETAILS AND CABLES ASSOCIATED WITH NEW TERMINATION BOX.
SEE K12.
ADDED NOTE 12.

27/05/2013
L.MARTINUZZI
CHECKED.
M.BENNETT
APPROVED.

10/05/2014
L.MARTINUZZI
CHECKED.
M.BENNETT
APPROVED.

TO BE READ WITH DRAWING 227355-2

ISSUED FOR CONSTRUCTION

SCALE AS SHOWN

DESIGNED	-
DRAWN	L.MARTINUZZI
CHECKED	W.BYRNE
APPROVED	M.BENNETT
DATE	15/06/2012
TRIM REF	-
PROJECT NUMBER	SM-06717

DRAWING No **227355** SHEET 1 AMD 2 SIZE B1

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RMICB SUBSTATIONS WITH E TYPE LV BOARD AND OPTICAL ARC FLASH DETECTION CABLING DIAGRAM

ISSUED FOR CONSTRUCTION

DRAWING No **227355** SHEET 1 AMD 2 SIZE B1

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